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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,362	02/08/2001	Freeman Leigh Rawson III	AUS920000522US1	6041

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EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
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2154

2

DATE MAILED: 03/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,362

Applicant(s)

RAWSON, FREEMAN LEIGH

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-24 are presented for examination.

Specification

2. The disclosure is objected. Some of the informalities are:
 - i. The attorney docket numbers of section "CROSS-REFERENCE TO RELATED APPLICATIONS" needs to be replaced with the co-pending application serial numbers.
 - ii. The "Summary of the invention" section needs to be modified to reflect the claimed subject matter. The copending applications, 09779358 and 09779361 also contain identical description. Hence, lines 21-29 of page 2, and lines 12-21 of page 3 needs to be removed.

Appropriate correction is required.

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: "Prioritization of network Management server PDUs versus Other PDUs at data link layer".

Drawings

4. New corrected drawing is required in this application because Figure 5 contains term "protoco". It should be corrected as "protocol".

Application/Control Number: 09/779,362
Art Unit: 2154

Page 3

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-24, are rejected under 35 U.S.C. 103(a) as being unpatentable over Yuasa et al. 6,085,238 (Hereinafter Yuasa) in view of Ganz et. al. 6,049,549 (Hereafter Ganz) and in further view of Hoffman et al. 6,094,435 (Hereinafter Hoffman).

7. As per claims 1, 2, 6, 12, 18, Yuasa teaches the following:

a first server connected to a central switch (e.g., one server connected to another server through an Ethernet switch, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

a second server connected to the switch (e.g., one server connected to another server through an Ethernet switch, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47), wherein the second server includes a network interface card (NIC) enabled to receive management protocol data units (PDUs) from the first server and application PDUs from an external network; (e.g. NIC card, col., 21, line 8 – col., 22, line 44), and

wherein the second server includes a host processor connected to a network interface card and wherein the second server is configured to buffer the management PDUs and application

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Art Unit: 2154

PDUs (e.g., response to the broadcast message, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47).

However, Yuasa does not specifically mention about NIC comprising a processor and a buffer. However, the concept of using the NIC cards for data link layer protocol for the communication between management server and other servers is clearly disclosed by Yuasa and it is also well known in the prior art, for example, Ganz, discloses the use of NIC comprising a processor and a buffer (e.g., NIC containing Control processor and buffers, figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuasa and Ganz because Ganz's use of NIC card having processor and a buffer to poll low-level messages would facilitate a management server to manage other servers on the network. The low-level messages can be easily sent from one device to another device that can help gather information from remote devices, as suggested by Ganz.

Yuasa and Ganz do not specifically mention about interpreting priority information in the PDUs and enabled to prioritize interrupts to a host processor based upon the priority information. However, the concept of handling the packets on the network is clearly disclosed by Yuasa and Ganz and it is also well known in the prior art, for example, Hoffman, discloses the use of interpreting priority information in the PDUs (e.g., Global priority information may be mapped from the priority information present in the VLAN tags and would be based on the IEEE 802.1Q standard, col., 18, line 35 – col., 20, line 28) and enabled to prioritize interrupts to a host processor based upon the priority information (e.g., the queue full interrupt are monitored one at a time to ensure that they are confirming to their reservations. This scheme detects misbehavior

Art Unit: 2154

of flows over a period of time. The processor 32, in response to a queue-full interrupt, sets a count indicator in the associated memory 42 for an entry directing packets to the output port 56i associated with the queue Qi, col., 21, line 18 – col., 23, line 55).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuasa, Ganz and Bobeck because Hoffman's use of interpreting priority information in the protocol packets would help prioritize interrupts to a host processor based upon the priority information. The priority information will determine which packet needs to be handled first by the processor. Hence, the packets with higher priority will be handled faster than the lower priority management packets received by the server.

8. As per claims 3, 10, 11, Yuasa teaches the following:

the second server is further configured to generate application PDUs destined for the external network (e.g., other servers communicating with Internet using protocol packets, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

management PDUs destined for the first server responsive to the received PDUs (e.g., protocol packets of the response sent to the broadcast message of the system management server, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

the second server comprises a server appliance and wherein the network further includes a plurality of additional server appliances each attached to the switch (e.g., other servers, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47),

Art Unit: 2154

the first server comprises a management server enabled to manage each of server appliances (e.g., system management server, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47).

9. As per claims 4, 5, 13, 19, 20, Yuasa teaches the following:

network protocol stack comprises the TCP/IP protocols (e.g., In addition, in an information system network using a LAN connecting personal computers (PCs) as terminals and a host computer on a TCP/IP protocol basis, a client and centralized server network is a paradigm, wherein most employees connect PCs as their own client machines to the network, col., 1, line 15 – col., 3, line 26), and

the second PDU comprises an application PDU generated at the highest level of the protocol stack (e.g., application message packet sent to the servers by the system management server, figure 34, col., 47, line 1 – col., 49, line 62, col., 4, line 37 – col., 6, line 47).

However, Yuasa does not specifically mention about NIC comprising a processor and a buffer, and a low level polling. However, the concept of using the NIC cards for data link layer protocol for the communication between management server and other servers is clearly disclosed by Yuasa and it is also well known in the prior art, for example, Ganz, discloses the use of a low level polling using communication protocol (e.g., Support for QoS requirements is more easily provided at the MAC layer than at higher layers or the protocols. In particular, an adaptive MAC polling approach in combination with a resource manager provide efficient use of limited and time varying communication resources while satisfying QoS requirements, col., 1,

Art Unit: 2154

line 6 – col., 3, line 57) and NIC comprising a processor and a buffer (e.g., NIC containing Control processor and buffers, figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Yuasa and Ganz because Ganz's use of NIC card having processor and a buffer to poll low-level messages would facilitate a management server to manage other servers on the network. The low-level messages can be easily sent from one device to another device that can help gather information from remote devices, as suggested by Ganz.

10. . As per claims 7-9, 14-17, 21- 24, refer to claims 1, 4, 12, 13, 18 and 19 for rejection and combination of references.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (703) 605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee, can be reached at (703) 305-8498.

Application/Control Number: 09/779,362

Page 8

Art Unit: 2154

The appropriate fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Haresh Patel

March 21, 2004



JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
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